DOCUMENT RESUME

ED 282 491 HE 020 318

AUTHOR	Chickering, Arthur W.; Gamson, Zelda F.
TITLE	Seven Principles for Good Practice in Undergraduate Education.
INSTITUTION	American Association for Higher Education, Washington, D.C.
SPONS AGENCY	Education Commission of the States, Denver, Colo.
PUB DATE	Mar 87
NOTE	6p.
PUB TYPE	Journal Articles (080) -- Viewpoints (120)
JOURNAL CIT	AAHE Bulletin; p3-7 Mar 1987
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*College Instruction; *Educational Principles; Expectation; Feedback; Higher Education; *Instructional Improvement; *Learning Activities; Peer Relationship; *Student Participation; Teacher Student Relationship; Time on Task; *Undergraduate Study

ABSTRACT

Seven principles that can help to improve undergraduate education are identified. Based on research on college teaching and learning, good practice in undergraduate education: (1) encourages contacts between students and faculty; (2) develops reciprocity and cooperation among students; (3) uses active learning techniques; (4) gives prompt feedback; (5) emphasizes time on task; (6) communicates high expectations; and (7) respects diverse talents and ways of learning. Examples of approaches that have been used in different kinds of college in the last few years are described. In addition, the implications of these principles for the way states fund and govern higher education and for the way institutions are run are briefly discussed. Examples of good approaches include: freshman seminars on important topics taught by senior faculty; learning groups of five to seven students who meet regularly during class to solve problems set by the instructor; active learning using structured exercises, discussions, team projects, and peer critiques, as well as internships and independent study; and mastery learning, contract learning, and computer-assisted instruction approaches, which required adequate time on learning. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

SEVEN PRINCIPLES
FOR GOOD PRACTICE IN UNDERGRADUATE EDUCATION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

*by Arthur W. Chickering and Zelda F. Gamson**

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
AAHE
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED282491

Apathetic students, illiterate graduates, incompetent teaching, impersonal campuses—so rolls the drumfire of criticism of higher education. More than two years of reports have spelled out the problems. States have been quick to respond by holding out carrots and beating with sticks.

There are neither enough carrots nor enough sticks to improve undergraduate education without the commitment and action of students and faculty members. They are the precious resources on whom the improvement of undergraduate education depends.

But how can students and faculty members improve undergraduate education? Many campuses around the country are asking this question. To provide a focus for their work, we offer seven principles based on research on good teaching and learning in colleges and universities.

Good practice in undergraduate education:

1. Encourages contacts between students and faculty.
2. Develops reciprocity and cooperation among students.
3. Uses active learning techniques.
4. Gives prompt feedback.
5. Emphasizes time on task.
6. Communicates high expectations.
7. Respects diverse talents and ways of learning.

We can do it ourselves—with a little bit of help . . . .

HE 020 318

**Prepared with the assistance of Alexander W. Astin, Howard Bowen, Carol M. Boyer, K. Patricia Cross, Kenneth Eble, Russell Edgerton, Jerry Gaff, Joseph Katz, C. Robert Pace, Marvin W. Peterson, and Richard C. Richardson, Jr.*

This work was co-sponsored by the American Association for Higher Education and the Education Commission of the States. The Johnson Foundation supported the preparation of early drafts and a meeting for the authors at Wingspread in Racine, Wisconsin. William Boyd and Henry Halsted of the Johnson Foundation made useful contributions to the group's deliberations and to revisions.

A FOCUS FOR IMPROVEMENT

These seven principles are not ten commandments shrunk to a twentieth century attention span. They are intended as guidelines for faculty members, students, and administrators—with support from state agencies and trustees—to improve teaching and learning. These principles seem like good common sense, and they *are*—because many teachers and students have experienced them and because research supports them. They rest on 50 years of research on the way teachers teach and students learn, how students work and play with one another, and how students and faculty talk to each other.

While each practice can stand on its own, when all are present their effects multiply. Together, they employ six powerful forces in education:

- Activity
- Cooperation
- Diversity
- Expectations
- Interaction
- Responsibility

Good practices hold as much meaning for professional programs as for the liberal arts. They work for many different kinds of students—white, black, Hispanic, Asian, rich, poor, older, younger, male, female, well-prepared, underprepared.

But the ways different institutions implement good practice depends very much on their students and their circumstances. In what follows, we describe several different approaches to good practice that have been used in different kinds of settings in the last few years. In addition, the powerful implications of these principles for the way states fund and govern higher education and for the way institutions are run are discussed briefly at the end.

As faculty members, academic administrators, and student personnel staff, we have spent most of our working lives trying to understand our students, our colleagues, our institutions, and ourselves. We have conducted research on higher education with dedicated colleagues in a wide range of schools in this country. We draw the implications of this research for practice, hoping to help us all do better.

We address the teacher's *how*, not the subject-matter *what*, of good practice in undergraduate education. We recognize that content and pedagogy interact in complex ways. We are also aware that there is much healthy ferment within and among the disciplines. What is taught, after all, is at least as important as how it is taught. In contrast to the long history of research in teaching and learning, there is little research on the college curriculum. We cannot, therefore, make responsible recommendations about the content of a good undergraduate education. That work is yet to be done.

This much we can say: An undergraduate education should prepare students to understand and deal intelligently with modern life. What better place to start but in the classroom and on our campuses? What better time than now?

SEVEN PRINCIPLES OF GOOD PRACTICE

1. Encourages Contacts Between Students and Faculty

Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

Some examples: Freshman seminars on important topics, taught by senior faculty members, establish an early connection between students and faculty in many colleges and universities.

In the Saint Joseph's College core curriculum, faculty members who lead discussion groups in courses outside their fields of specialization model for students what it means to be a learner. In the Undergraduate Research Opportunities Program at the Massachusetts Institute of Technology, three out of four undergraduates have joined three-quarters of the faculty in recent years as junior research colleagues. At Sinclair Community College, students in the College Without Walls program have pursued studies through learning contracts. Each student has created a "resource group," which includes a faculty member, a student peer, and two "community resource" faculty members. This group then provides support and assures quality.

2. Develops Reciprocity and Cooperation Among Students

Learning is enhanced when it is more like a team effort than a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding.

Some examples: Even in large lecture classes, students can learn from one another. Learning groups are a common practice. Students are assigned to a group of five to seven other students, who meet regularly during class throughout the term to solve problems set by the instructor. Many colleges use peer tutors for students who need special help.

Learning communities are another popular way of getting students to work together. Students involved in SUNY at Stony Brook's Federated Learning Communities can take several courses together. The courses, on topics related to a common theme like science, technology, and human values, are from different disciplines.

Faculty teaching the courses coordinate their activities while another faculty member, called a "master learner," takes the courses with the students. Under the direction of the master learner, students run a seminar which helps them integrate ideas from the separate courses.

3. Uses Active Learning Techniques

Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, apply it to their daily lives. They must make what they learn part of themselves.

Some examples: Active learning is encouraged in classes that use structured exercises, challenging discussions, team projects, and peer critiques. Active learning can also occur outside the classroom. There are thousands of internships, independent study, and cooperative job programs across the country in all kinds of colleges and universities, in all kinds of fields, for all kinds of students. Students also can help design and teach courses or parts of courses. At Brown University, faculty members and students have designed new courses on contemporary issues and universal themes; the students then help the professors as teaching assistants. At the State University of New York at Cortland, beginning students in a general chemistry lab have worked in small groups to design lab procedures rather than repeat prestructured exercises. At the University of Michigan's Residential College, teams of students periodically work with faculty members on a long-term original research project in the social sciences.

4. Gives Prompt Feedback

Knowing what you know and don't know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

Some examples: No feedback can occur without assessment. But assessment without timely feedback contributes little to learning.

Colleges assess students as they enter in order to guide them in planning their studies. In addition to the feedback they receive from course instructors, students in many colleges and universities receive counseling periodically on their progress and future plans. At Bronx Community College, students with poor academic preparation have been carefully tested and given special tutorials to prepare them to take introductory courses. They are then advised about the introductory courses to take, given the level of their academic skills.

Adults can receive assessment of their work and other life experiences at many colleges and universities through portfolios of their work or through standardized tests; these provide the basis for sessions with advisors.

Alverno College requires that students develop high levels of performance in eight general abilities such as analytic and communication skills. Performance is assessed and then discussed with students at each level for each ability in a variety of ways and by a variety of assessors.

In writing courses across the country, students are learning, through detailed feedback from instructors and fellow students, to revise and rewrite drafts. They learn, in the process, that feedback is central to learning and improving performance.

5. Emphasizes Time on Task

Time plus energy equals learning. There is no substitute for time on task. Learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis for high performance for all.

Some examples: Mastery learning, contract learning, and computer assisted instruction require that students spend adequate amounts of time on learning. Extended periods of preparation for college also give students more time on task. Matteo Ricci College is known for its efforts to guide high school students from the ninth grade to a B.A. in six years through a curriculum taught jointly by faculty at Seattle Preparatory School and Seattle University. Providing students with opportunities to integrate their studies into the rest of their lives helps them use time well.

Workshops, intensive residential programs, combinations of televised instruction, correspondence study, and learning centers are all being used in a variety of institutions, especially those with many part-time students. Weekend colleges and summer residential programs, courses offered at work sites and community centers, clusters of courses on related topics taught in the same time block, and double-credit courses make more time for learning. At Empire State College, for example, students design degree programs organized in manageable time blocks; students may take courses at nearby institutions, pursue independent study, or work with faculty and other students at Empire State learning centers.

6. Communicates High Expectations

Expect more and you will get more. High expectations are important for everyone—for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated. Expecting students to per-

form well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations of themselves and make extra efforts.

Some examples: In many colleges and universities, students with poor past records or test scores do extraordinary work. Sometimes they outperform students with good preparation. The University of Wisconsin-Parkside has communicated high expectations for underprepared high school students by bringing them to the university for workshops in academic subjects, study skills, test taking, and time management. In order to reinforce high expectations, the program involves parents and high school counselors.

The University of California, Berkeley introduced an honors program in the sciences for underprepared minority students; a growing number of community colleges are establishing general honors programs for minorities. Special programs like these help. But most important are the day-to-day, week-in and week-out expectations students and faculty hold for themselves and for each other in all their classes.

7. Respects Diverse Talents and Ways of Learning

There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learning in new ways that do not come so easily.

Some examples: Individualized degree programs recognize different interests. Personalized systems of instruction and mastery learning let students work at their own pace. Contract learning helps students define their own objectives, determine their learning activities, and define the criteria and methods of evaluation. At the College of Public and Community Service, a college for older working adults at the University of Massachusetts-Boston, incoming students have taken an orientation course that encourages them to reflect on their learning styles. Rockland Community College has offered a life-career-educational planned course. At the University of California, Irvine, introductory physics students may choose between a lecture-and-textbook course, a computer-based version of the lecture-and-textbook course, or a computer-based course based on notes developed by the faculty that allow students to program the computer. In both computer-based courses, students work on their own and must pass mastery exams.

WHOSE RESPONSIBILITY IS IT?

Teachers and students hold the main responsibility for improving undergraduate education. But they need a lot of help. College and university leaders, state and federal officials, and accrediting associations have the power to shape an environment that is favorable to good practice in higher education.

What qualities must this environment have?

- ▶ A strong sense of shared purposes.
- ▶ Concrete support from administrators and faculty leaders for those purposes.
- ▶ Adequate funding appropriate for the purposes.
- ▶ Policies and procedures consistent with the purposes.
- ▶ Continuing examination of how well the purposes are being achieved.

There is good evidence that such an environment can be created. When this happens, faculty members and administrators think of themselves as educators. Adequate resources are put into creating opportunities for faculty members, administrators, and students to celebrate and reflect on their shared purposes. Faculty members receive support and release time for appropriate professional development activities. Criteria for hiring and promoting faculty members, administrators, and staff support the institution's purposes. Advising is considered important. Departments, programs, and classes are small enough to allow faculty members and students to have a sense of community, to experience the value of their contributions, and to confront the consequences of their failures.

States, the federal government, and accrediting associations affect the kind of environment that can develop on campuses in a variety of ways. The most important is through the allocation of financial support. States also influence good practice by encouraging sound planning, setting priorities, mandating standards, and reviewing and approving programs. Regional and professional accrediting associations require self-study and peer review in making their judgments about programs and institutions.

These sources of support and influence can encourage environments for good practice in undergraduate education by:

- ▶ Setting policies that are consistent with good practice in undergraduate education.
- ▶ Holding high expectations for institutional performance.
- ▶ Keeping bureaucratic regulations to a minimum that is compatible with public accountability.
- ▶ Allocating adequate funds for new undergraduate programs and the professional development of faculty members, administrators, and staff.
- ▶ Encouraging employment of under-represented groups among administrators, faculty members, and student services professionals.
- ▶ Providing the support for programs, facilities, and financial aid necessary for good practice in undergraduate education. ■

Chickering

Gamson

Selected References

Adelman, C. (1984) *Starting with students: Promising approaches in American higher education.* Washington, DC: National Institute of Education.

Astin, A.W. (1977). *Four critical years: Effects of college on beliefs, attitudes, and knowledge.* San Francisco: Jossey-Bass.

Astin, A.W. (1985). *Achieving educational excellence.* San Francisco: Jossey-Bass.

Bayer, A.E. (1975). Faculty composition, institutional structure, and students' college environment. *Journal of Higher Education,* 46(5), 549-555.

Beal, P.E., & Noel, L. (1980). *What works in student retention.* American College Testing Program.

Bouton, C., & Garth, R.Y. (1983). Learning in groups. *New Directions for Teaching and Learning, 14.* San Francisco: Jossey-Bass.

Bowen, H.R. (1977). *Investment in learning.* San Francisco: Jossey-Bass.

Boyer, C.M., & Ahlgren, A. (1987, July/August). Assessing undergraduates' patterns of credit distribution: Amount and specialization. *Journal of Higher Education,* 58(4), forthcoming.

Boyer, C.M., Ewell, P.T., Finney, J.E., & Mingle, J.R. (1987). Assessment and outcomes measurement—A view from the states: Highlights of a new ECS survey. *AAHE Bulletin, 39:7,* 8-12.

Chickering, A.W. (1969). *Education and identity.* San Francisco: Jossey-Bass.

Chickering, A.W., & McCormick, J. (1973). Personality development and the college experience. *Research in Higher Education, 1,* 43-70.

Chickering, A.W. (1974). *Commuting versus resident students: Overcoming the educational inequities of living off campus.* San Francisco: Jossey-Bass.

Chickering, A.W., & Associates (1981). *The Modern American College: Responding to the New Realities of Diverse Students and a Changing Society.* San Francisco: Jossey-Bass.

Claxton, C.S., & Ralston, Y. (1978). Learning styles: Their impacts on teaching and administration. *AAHE-ERIC/Higher Education, Research Report No. 10.* Washington, DC: American Association for Higher Education.

Cohen, E.G. (1986). *Designing groupwork: Strategies for the heterogeneous classroom.* New York: Teachers College Press.

Cross, K.P. (1986, March). Taking teaching seriously. Presentation at the Annual Meeting of the American Association for Higher Education.

Eble, K. (1976). *Craft of teaching.* San Francisco: Jossey-Bass.

Feldman, K.A., & Newcomb, T.M. (1969). *The impact of college on students.* San Francisco: Jossey-Bass.

Gamson, Z.F., & Associates. (1984). *Liberating education.* San Francisco: Jossey-Bass.

Gardner, H. (1983). *Frames of mind: A theory of multiple intelligence.* New York: Basic Books.

Heath, D. (1968). *Growing up in college.* San Francisco: Jossey-Bass.

Jacob, P.E. (1957). *Changing values in college.* New York: Harper.

Katz, J., & Associates. (1968). *No time for youth.* San Francisco: Jossey-Bass.

Keeton, M.T. (Ed.) (1976). *Experiential learning.* San Francisco: Jossey-Bass.

Kolb, D. (1984). *Experiential learning.* New Jersey: Prentice Hall.

Kulik, J.A. (1982). Individualized systems of instruction. In Harold E. Mitzel (Ed.), *Encyclopedia of Educational Research, 2.* New York: The Free Press.

Lowman, J. (1984). *Mastering the techniques of teaching.* San Francisco: Jossey-Bass.

McKeachie, W.J. (1985). *Improving undergraduate education through faculty development.* San Francisco: Jossey-Bass.

Messick, S., & Associates, (Ed.) (1976). *Individuality in learning.* San Francisco: Jossey-Bass.

Newcomb, T.M. (1943). *Personality and social change.* New York: Dryden Press.

Newcomb, T.M., and others. *Persistence and change: A college and its students after twenty-five years.* Huntington, NY: Krieger.

Pace, C.R. (1943). *Measuring outcomes of college: Fifty years of finding and recommending for future assessment.* San Francisco: Jossey-Bass.

Pascarella, E.T. (1980). Student faculty informal contact and college outcomes. *Review of Educational Research, 50,* Winter, 545-595.

Pascarella, E.T., Terenzini, P.T., & Wolfe, L.M. (1986). Orientation to college and freshman year persistence/withdrawal decisions. *Journal of Higher Education,* 57, 155-175.

Perry, W.G., Jr. (1970). *Forms of intellectual and ethical development in the college years: A scheme.* New York: Holt, Rinehart & Winston.

Peterson, M.W., Jedamus, P., & Associates. (1981). *Improving academic management.* San Francisco: Jossey-Bass.

Richardson, R.C., Jr., Fisk, E.C., & Okun, M.A. (1983). *Literacy in the open access college.* San Francisco: Jossey-Bass.

Sanford, N. (Ed.) (1962). *The American college.* New York: John Wiley & Sons.

Wallace, W.L. (1966). *Student culture.* Chicago: Aldine.

Wilson, R.C., Gaff, J.G., Dienst, E.R., Wood, L., & Bavry, J.L. (1975). *College professors and their impact upon students.* New York: John Wiley & Sons.

Winter, D.G., McClelland, D.C., & Stewart, A.J. (1981). *A new case for the liberal arts.* San Francisco: Jossey-Bass.